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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,716	02/09/2004	William M. Bawner	5597-001B	9560

25184 7590 09/22/2006

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EXAMINER

HWANG, VICTOR KENNY

ART UNIT PAPER NUMBER

3764

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/774,716	Applicant(s) BRAUNER, WILLIAM M.	
	Examiner Victor K. Hwang	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 17, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>July 21, 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 17, 19 and 20 are objected to because of the following informalities:

in claim 17, line 2, after the recitation "accumulated" the term --pressure-- presumably should be inserted;

in claim 19, line 2, the recitation "users" presumably should be changed to --user's--;

and

claim 20 depends from claim 19, and is like objected to.

Appropriate correction is required.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 10/695,087. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-15, 19 and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,746,379 B1 in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000). Claims 1-20 of U.S. Patent No. 6,746,379 B1 disclose an apparatus for safely supporting a barbell during weight lifting comprising: a) a tiltable weight bench for supporting a user's head and torso, the bench having a head end and a lower end; b) first and second spaced, elongated uprights positioned on opposite sides of the bench head end and tilted rearwardly, each of the uprights including a slotted outer housing, a rod longitudinally aligned within the housing, a sleeve slidable on the rod between a raised position and a lowered position, and a horizontal barbell support attached to the sleeve and extending outwardly from the housing through the slot; c) first and second hydraulic cylinders, each cylinder have a first end connected to one of the barbell supports and a second end

connected to the upright housing; d) an accumulator for actuating the first and second hydraulic cylinders, the accumulator having a housing with a floating piston within the housing dividing the housing into an air compartment and a hydraulic fluid compartment connected by fluid lines to the first and second hydraulic cylinders; e) a foot-operated pump connected to the accumulator by an air line to pump air into the accumulator; and f) an actuator for controlling the flow of fluid from the accumulator to the hydraulic cylinders, whereby flow of fluid into the cylinders urges the supports toward their upright position, said actuator including a valve in the fluid line and a valve controller operable by the user's foot when the user is positioned on the bench. A vertically adjustable, horizontal bench support extends between the uprights with the head end of the bench supported on the bench support.

Claims 1-20 of the patent do not disclose the air precharged to a desired pressure to exert a force on the hydraulic fluid (claims 1, 11 and 19); a flexible partition between the air compartment and the hydraulic fluid compartment (claim 8); at least one fluid line including a flow disperser to restrict the rate at which hydraulic fluid flows into the hydraulic cylinder (claim 9); and the accumulator further including a turbulence-reducing medium to prevent the sloshing of the hydraulic fluid inside the accumulator whenever the hydraulic fluid is in motion (claim 10).

Mobley discloses that fluid power systems must have a sufficient and continuous supply of uncontaminated fluid to operate efficiently and discusses elements typically installed in fluid power systems (pg. 67). Accumulators are disclosed as a pressure storage reservoir in which hydraulic fluid is stored under pressure from an external source. Accumulators with floating pistons have a piston seal, wherein a seal failure is not obvious and requires frequent attention to

venting or draining of the airside of the piston (pg 70). Accumulators with a flexible bladder are disclosed as an equivalent to piston-type accumulators and have the benefit of having a very high volumetric efficiency capable of supplying a large percentage of the stored fluid to do work. Bladder-type accumulators are precharged with air or inert gas to a specified pressure. The bladder-type accumulator has the advantage that as long as the bladder is intact there is no exposure of fluid to the gas charge and therefore less danger of an explosion (pg. 71).

Mobley also discloses that baffles are used inside of fluid vessels to prevent excessive sloshing of the fluid and to put a partition between the fluid return line and the inlet line to force the returning fluid to travel farther around the tank before being drawn back into the active system to aid in settling the contamination and separating air entrained in the fluid (pg. 67). This is considered to be a flow disperser and/or a turbulence-reducing medium.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the accumulator of the invention as described in claims 1-20 of the patent with a flexible partition between the air and the hydraulic fluid, the air being precharged to a desired pressure, since *Mobley* discloses that an accumulator having a flexible bladder has a higher volumetric efficiency than a floating piston-type accumulator (pgs. 70 and 71).

It would also have been obvious to one having ordinary skill in the art at the time the invention was made to further provide the accumulator with baffles, in order to prevent excessive sloshing of the fluid and to put a partition between the fluid return line and the inlet line to force the returning fluid to travel farther around the tank before being drawn back into the active

system to aid in settling the contamination and separating air entrained in the fluid, as taught by *Mobley* (pg. 67).

6. Claims 16-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,746,379 B1 in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000) as applied to claim 11 above, and further in view of *Wilson* (US Pat. 4,063,726). Claims 1-20 of U.S. Patent No. 6,746,379 B1 in view of *Mobley* discloses the invention as claimed except for a manual pressure release valve in communication with the compressible medium to decrease the lifting force urging the supports towards their upright positions (claim 16); a safety pressure release valve in communication with the compressible medium to release accumulated pressure inside the pressure vessel casing whenever the casing's maximum safe operating pressure is being approached (claim 17); and a pressure indication gauge for instantaneously indicating the amount of lift force that can be transmitted to the supports (claim 18).

Wilson discloses a pneumatically pressurized hydraulic accumulator 27 for an exercise system comprising an accumulator 27 having a flexible partition 99 separating the compressible medium from the hydraulic fluid. The first compartment 99 containing the compressible medium can be precharged from a pressurized line 100 through air charge valve 39 with the air pressure registered by gauge 101 (col. 8, lines 30-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide air compartment of the accumulator of Claims 1-20 in view of

Mobley with a valve and gauge, since *Wilson* discloses a valve and gauge are used to properly precharge and monitor the compressible medium compartment of the accumulator.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4-6, 8-11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Barrett* (US Pat. 4,799,672) in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000). *Barrett* discloses an apparatus for safely supporting a barbell above a weight lifting bench comprising a first and second spaced, elongated uprights 4,6 positionable on opposite sides of the bench (see Fig. 8), each of the uprights including a vertically adjustable barbell support 16,18 having a raised position and a lowered position, and at least one hydraulic cylinder 24,26 having a first end 28,30 connected to the barbell support and a second end 62,64 connected to the upright 4,6. A hydraulic power system comprising a hydraulic pump 36, reservoir 37 and valve 38 is connected by at least one fluid line 40-43 to the hydraulic cylinders 24,26. An actuator 110 controls the flow of fluid from the hydraulic power system. A horizontal member 10 joins the uprights and extends between the uprights. The actuator 110 is positioned for access by a user's foot. Each of the uprights includes a slotted housing, tracks 50,52,54,56 longitudinally aligned within the housing, the barbell supports 16,18 having rollers guided for vertical movement along the tracks.

Barrett does not disclose the hydraulic power system comprising an accumulator for actuating the at least one hydraulic cylinder, the accumulator having a pressure vessel casing containing a compressible medium and a hydraulic fluid, wherein the compressible medium is precharged to a desired pressure to exert a force on the hydraulic fluid, the accumulator being connected by at least one fluid line to the at least one hydraulic cylinder (claims 1 and 11); the pressure vessel including a first compartment for containing the compressible medium and a second compartment for storing the hydraulic fluid, and a flexible partition between the first and second compartments (claim 8); the at least one fluid line including a flow disperser to restrict the rate at which fluid flows into the at least one hydraulic cylinder (claim 9); the accumulator including a turbulence-reducing medium to prevent sloshing of the hydraulic fluid inside the accumulator whenever the hydraulic fluid is in motion (claim 10); a pump connected to the accumulator by a compressible medium conduit to pump the compressible medium into the accumulator (claim 11);

Mobley discloses that fluid power systems must have a sufficient and continuous supply of uncontaminated fluid to operate efficiently and discusses elements typically installed in fluid power systems (pg. 67). Accumulators are disclosed as a pressure storage reservoir in which hydraulic fluid is stored under pressure from an external source. There are times when hydraulic systems require large volumes of liquid for short periods of time. This is due to either the operation of a large cylinder or the necessity of operating two or more circuits simultaneously. It is not economical to install a pump of such large capacity in the system for only intermittent usage, particularly if there is sufficient time during the working cycle for an accumulator to store enough liquid to aid the pump during peak demands (pg. 69).

Accumulators with floating pistons have a piston seal, wherein a seal failure is not obvious and requires frequent attention to venting or draining of the airside of the piston (pg 70). Accumulators with a flexible bladder are disclosed as an equivalent to piston-type accumulators and have the benefit of having a very high volumetric efficiency capable of supplying a large percentage of the stored fluid to do work. Bladder-type accumulators are precharged with air or inert gas to a specified pressure by an air pump. The bladder-type accumulator has the advantage that as long as the bladder is intact there is no exposure of fluid to the gas charge and therefore less danger of an explosion (pg. 71). Oil and air containing oxygen under high pressures can be explosive.

Mobley also discloses that baffles are used inside of fluid vessels to prevent excessive sloshing of the fluid and to put a partition between the fluid return line and the inlet line to force the returning fluid to travel farther around the tank before being drawn back into the active system to aid in settling the contamination and separating air entrained in the fluid (pg. 67). This is considered to be a flow disperser and/or a turbulence-reducing medium.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the hydraulic power system of *Barrett* with a precharged, bladder-type, baffled accumulator, in order to avoid installing a pump of such large capacity in a system for only intermittent usage, as taught by *Mobley*.

9. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Barrett* (US Pat. 4,799,672) in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000) as applied to claims 1 and 11 above, and further in view of *Measom* (US Pat. 5,492,518). *Barrett* in

view of *Mobley* discloses the invention as claimed except for a rod longitudinally aligned within the housing, a sleeve slidable on the rod, and the barbell support being attached to the sleeve with the sleeve connected to the first end of the cylinder.

Measom discloses an exercise apparatus comprising a linear track 31 (Fig. 8) for guided linear movement of a carriage 33 having rollers 43 and teaches that an equivalent means for providing guided linear movement comprises a rod 106 having a sleeve 108 slidably mounted to the rod (Fig. 17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the slotted uprights and barbell supports of *Barrett* in view of *Mobley* with a rod and sliding sleeve in place of the track and rolling carriage, since *Measom* teaches that such is a known alternative for providing guided linear movement in an exercise apparatus.

10. Claims 3, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Barrett* (US Pat. 4,799,672) in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000) as applied to claims 1 and 11 above, and further in view of *Tanski* (US Pat. 4,807,875). *Barrett* in view of *Mobley* discloses the invention as claimed except for the uprights tilted rearwardly (claims 3 and 14); and the uprights including barbell weight rests attached to the uprights at selected vertical positions (claim 7).

Tanski discloses an apparatus for safely supporting a barbell above a weight lifting bench comprising a pair of uprights 11 that are tilted rearwardly and barbell weight rests 51,71 attached to the uprights at selected vertical positions. The uprights are tilted rearwardly by about 10

degrees. It is known in the exercise art that uprights angled back rearwardly allow for less hindrance of the movement of the barbell during exercise use. The uprights include barbell supports that extend through slots in the housing of the uprights are moved in upward and downward directions by actuating switch 121. Barbell rests 51,71 support a barbell at a desired position when a user is not actively exercising.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the uprights of *Barrett* in view of *Mobley* with a rearward tilt and barbell weight rests, in order to respectively provide less hindered movement of the barbell during exercise and to support the barbell at a desired starting position, since *Tanski* discloses such features as standard on barbell weight benches and the inclusion of such features would have further been a design consideration within the skill of an artisan in the exercise art.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Barrett* (US Pat. 4,799,672) in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000) as applied to claim 11 above, and further in view of *Silberman et al.* (US Pat. 4,369,966). *Barrett* in view of *Mobley* discloses the invention as claimed except for a vertically adjustable bench support extending between the uprights, the head end of the bench being supported on the bench support.

Silberman et al. discloses an exercise apparatus comprising a pair of uprights 116 including a pair of barbell supports 122 and a vertically adjustable bench support 232 extending between the uprights to support the head end of the bench 226 at a selected height and inclination. This permits adjustment of the bench for inclined pressing exercises.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the uprights of *Barrett* in view of *Mobley* with a vertically adjustable bench support, since *Silberman et al.* discloses that a vertically adjustable bench support permits the bench to be supported at a desired angular position (col. 4, lines 34-38).

12. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Barrett* (US Pat. 4,799,672) in view of *Mobley* (Fluid Power Dynamics, pp. 67-79, Elsevier, 2000) as applied to claim 11 above, and further in view of *Wilson* (US Pat. 4,063,726). *Barrett* in view of *Mobley* discloses the invention as claimed except for a manual pressure release valve in communication with the compressible medium to decrease the lifting force urging the supports towards their upright positions (claim 16); a safety pressure release valve in communication with the compressible medium to release accumulated pressure inside the pressure vessel casing whenever the casing's maximum safe operating pressure is being approached (claim 17); and a pressure indication gauge for instantaneously indicating the amount of lift force that can be transmitted to the supports (claim 18).

Wilson discloses a pneumatically pressurized hydraulic accumulator 27 for an exercise system comprising an accumulator 27 having a flexible partition 99 separating the compressible medium from the hydraulic fluid. The first compartment 99 containing the compressible medium can be precharged from a pressurized line 100 through air charge valve 39 with the air pressure registered by gauge 101 (col. 8, lines 30-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide compressible medium compartment of the pneumatically

pressurized hydraulic accumulator of *Barrett* in view of *Mobley* with a valve and gauge, since *Wilson* discloses a valve and gauge are used to properly precharge and monitor the compressible medium compartment of the accumulator.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

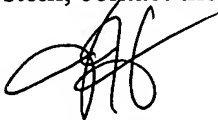
Jenkinson (US Pat. 4,353,547), *Brentham* (US Pat. 4,609,190), *Potts* (US Pat. 4,846,458), *Lennox et al.* (US Pat. 5,141,480), *Cone et al.* (US Pat. 5,151,072), *Holt* (US Pat. 5,277,681) and *Rullestad et al.* (US Pat. Pub. 2006/0135324 A1) discloses exercise apparatus features relevant to the claimed invention.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor K. Hwang whose telephone number is (571) 272-4976. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM Eastern time.

The facsimile number for submitting papers directly to the examiner for informal correspondence is (571) 273-4976. The facsimile number for submitting all formal correspondence is (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on (571) 272-4887.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor K. Hwang
September 17, 2006